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ORIGINAL COMMUNICATIONS.

REMARKS ON THE PATHOLOGY OF BURNS AND THEIR RATIONAL TREATMENT.

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AFTER all that has been said and written relative to the treatment of this class of injuries, both by the educated and uneducated, the medical history of burns still remains far from being satisfactory, and as yet we have not made that progress in their amelioration and cure which could be desired.

Probably we are too much disposed to view these most serious forms of injury in an isolated light, as local in character, merely, rather than as affections holding most intimate and important relations with the general system.

The first impression made upon the general system by the local action of intense heat is that of nervous shock. This condition is too clearly understood to require allusion here. But there are certain coincidental morbid phenomena associated with shock, which are of more importance and less comprehended.

In those cases of excessive nervous shock caused by extensive burns, thrombosis of the heart and large veins entering the right side of that organ not unfrequently occurs. There are peculiar reasons why thrombosis should be a more common result of shock from burns than from almost any class of injury, this phenomenon being due to a combination of causes, one in the form of excessive nervous depression, the other from disorganized blood from the local action of heat which has been conveyed from the burned tissues to the centre of circulation. Thus, a few disorganized blood-corpuscles or a small portion of coagulated fibrin, or albumen, when carried into the general circulation, at once become nuclei for the formation of thrombosis of the heart and great vessels.

Hence the necessity of accurate diagnosis between simple nervous shock and thrombosis in point of treatment. In simple shock the pulse, though exceedingly feeble, is not usually much accelerated, and is generally regular in rhythm. The cardiac sounds are very feeble, but distinct. The temperature is greatly reduced; the complexion pallid; the respiration is but little increased in frequency, and there is an absence of præcordial distress, though nausea may be present.

On the contrary, in shock with thrombosis, the breathing is painfully labored, and frequent. The action of the heart is tumultuous, irregular, feeble, and very frequent. The complexion is livid, while the skin is cold and bathed in perspiration; præcordial distress is painful, and the cardiac sounds almost obliterated.

There cannot be a rational doubt that death following extensive burns directly is often the immediate result of cardiac thrombosis.

Secondary stages of burns.—Following the reaction after the first shock to the nervous system has passed off, probably capillary embolism and its legitimate consequences constitute one of the chief causes of mortality. Here, as in thrombosis, those properties or rather constituents of the blood whose vitality has been destroyed in the burned tissues, not only become a septic source, but, after passing through the large veins and heart, find lodgment either in the pulmonic or portal circulation, producing blood-stasis, hyperæmia, inflammation, and suppuration. Hence we generally see these peculiar phenomena in one or the other of these two circulatory systems. It is sometimes witnessed in the cerebral circulation, when symptoms of congestion, with active delirium, and, finally, coma, are prominent.

Thus we may have in the pulmonic, as a result of capillary embolism, chill, followed by either pleuritis, pneumonitis, or abscess, with inflammatory fever; in the portal system, peritonitis, ulceration of the intestines, with either diarrhœa or dysentery, and abscess of the liver. In many of these cases all the characteristics of true pyæmia are developed. These microscopic emboli appear not unfrequently to manifest a tendency to find lodgment in the mucous surface of the small intestine,—for instance, the duodenum,—and then induce ulceration. This is probably due to an effort of nature to eliminate them from the circulation. As evidence of the fact that mere extent of burned surface is not always the cause of

death, numerous instances of very extensive burns have come under the observation of the writer, which were progressing favorably in the healing process, when suddenly symptoms of capillary embolism, congestion, and inflammation of some internal organ, or ulceration with dysentery, appeared and speedily terminated the case.

On the local changes in the tissues from burns.—No other variety of injury either from mechanical or chemical cause is attended with such protracted and unceasing pain as that from burns. This peculiar element of this class of injury is probably a serious obstacle to the progress of restoration. All painful wounds heal less readily than when painless. We often see far greater destruction of tissue from other causes followed by but little pain, and which are much more rapidly healed. This peculiarity of burns is doubtless due both to the exposure and injury of the vital organism of the myriads of terminal branches of sensitive nerves supplied to the skin. Thus, the innumerable termini of these nerves which are destroyed, and constantly exposed, become equally as innumerable centres of exquisite sensibility and pain. That constant tendency to contract in burned tissue, whether vascular or fibrous, produces unceasing pressure around these inflamed nervous termini, and causes incessant pain, until finally, by this compressing process, their organization is destroyed, as is indicated by the great want of sensibility in the cicatrix.

While it is true that the destruction of vascular and fibrous structures by the action of intense heat is a leading difficulty in the way of healing these wounds, that irritation constantly present caused by the myriads of inflamed and sensitive nervous branches is equally a cause of protracting their progress. Then, in the healing process of burns, *painfulness* and *contractility* are among the distinguishing features.

This is true even of the granulations which form the new tissue. They are firm, more cartilaginous, more sensitive and painful, and their structure more contractile than any other. Here again, may not this in part be due to those minute bulbs of the inflamed nervous branches keeping up an unceasing irritation?

This peculiar contractility of burned tissue not only tends to obliterate the nervous branches entering it by compression, but also tends to diminish the calibre of capillary vessels to such an extent as to comparatively unfit them as the carriers of blood-corpuscles. Hence this newly-formed cicatricial structure is reduced somewhat to the standard of cartilage, and is no longer subject to those active vital operations of disintegration, waste, and renewal that other more vital tissues are. Therefore, whatever form they assume is permanent. In this manner the nervous supply is curtailed, causing a diminished sensibility and circulation in the cicatrix.

On the general treatment of burns.—In the treatment of simple primary shock, while all concede the necessity for anodynes, the free use of diffusible stimuli and the sulphate of quinine are of great importance. The process of nervous shock in these cases has some analogy to chill, as when reaction returns it is disposed to assume the form of fever. The quinine in such cases not only aids in restoring reaction, but it also moderates it, and prevents a high degree of febrile excitement.

In shock with cardiac thrombosis, opiates are dangerous. Quinine in large doses is too depressing, but in small quantities is useful. Ammonia in the form of the liquor, with iodide of potassium, and alcoholic stimulants, constitute the most important remedies. The following combination is a valuable one under these distressing circumstances:

℞ Liq. ammon. fort., f℥ij;
Potas. iodid., ℥iss;
Glycerinæ, f℥i;
Elix. calisayæ, f℥v.—M.

Of this a tablespoonful may be given every hour, diluted. The ammonia might also be used hypodermically with advantage.

Those cases of hectic fever arising during the progress of very extensive burns with copious suppuration, are best treated with a combination of tinct. of the chloride of iron, chlorate of potassium, and quinine. For instance, in a case of burn where the entire cutis from the toes to the hip was destroyed, the entire surface of the limb became a mass of suppurating granulations, the amount of pus excreted daily being enormous. Hectic fever with great exhaustion followed. This method of treatment was adopted, and in a month the hectic symptoms had disappeared, the suppuration subsided, and the extensive injury rapidly healed. In those cases of

internal inflammation, suppuration, or ulceration arising from capillary embolism either with or without symptoms of pyæmia, those remedies are equally valuable, but they should be associated with antiseptics of a decided character; carbolic acid in the form of sulpho-carbolate of sodium is probably one of the best adapted of all this class for internal use. The external use of the acid owes its chief value to its antiseptic action over the system when absorbed. The question of sepsis in burns is a much more important one than is generally supposed. Why should it be otherwise? The large amount of tissue and blood injured, and often disorganized in these cases, affords an abundant source for the development of septic material, which, when absorbed into the general system, is the true cause of many of the local and general morbid phenomena heretofore attributed merely to sympathetic influences. Hence the infinite importance of both internal and external antiseptics, in all cases of serious burns. In many of those cases of sudden fatal termination from comparatively slight burns, blood-sepsis or septicæmia is the real cause of death. Therefore, in all serious cases of burns, the free use of antiseptics both internally and externally, to meet this condition, becomes an important element of treatment. Typhoidism in the type of febrile reaction in burns as in wounds always indicates septicæmia.

Local treatment.—Of all local applications in the experience of the writer, iodoform, prepared with extract of conium, and spermaceti ointment, with a small portion of carbolic acid, appears to meet the several indications best.

This agent acts as a certain and most effective sedative on the painful and irritable exposed surface, and at the same time as an antiseptic. It reduces irritation, inflammation, and suppuration when in excess, in a remarkable manner. It converts a most painful and irritable wound into one comparatively painless with promptness.

This remedy is also an excellent promotive of healthy action and of the healing process. I have experimented with iodoform ointment in these cases repeatedly, and always with the same pleasant result. The use of this preparation has another advantage: it renders the constant use of anodynes unnecessary. The following formula has been found the best:

℞ Iodoformi, ʒij;
Unguent. cetacei, ʒi;
Ext. conii, ʒiss;
Acid. carbol., x gtt.—M.

This ointment is spread twice daily on soft linen, and applied over the inflamed surface, and then enveloped in oiled silk. No other dressing is necessary. The only objection to the use of this remedy is its peculiar odor. In those cases of burns attended with great *dryness* of surface from destruction of vitality and want of exhalation, the wound, before being covered with the iodoform ointment, should be coated over with the common linimentum calcis. This affords a soft and moist dressing, which in no wise interferes with the action of the iodoform.

A CASE OF HEMORRHAGE INTO THE VENTRICLES OF THE BRAIN IN AN INFANT CHILD OF SIX MONTHS.

BY CHARLES WINSLOW DULLES, M.D.,
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Read before the Pathological Society of Philadelphia, April 13, 1876.

A. W., æt. 6 months, was born in the Philadelphia Hospital, taken out by her mother, deserted, and brought back March 31, 1876. She had at this time some bruises upon the right side of her face; her legs were flexed upon her buttocks, and her hands doubled over her head. The buttocks were in a condition of irritation not uncommon in very young children.

On the second day a collection of pus was found over the right side of the sacrum; this burst the next day. Subsequent examination showed it to have been subcutaneous and small.

The child had some coryza and some pneumonia of the right lung, which were treated with poultices, and ℞ Ammon. carb., potassii chlor., āā ʒj; tr. ferri chlor., fʒj; syrupi, fʒiij, fʒss t. d. She was restless, but seldom cried. Three days before death the respirations were hurried. This was attributed to the pneumonia. On April 11, she died. The next day I made a post-mortem examination and found the liver and both kidneys fatty; in the lower lobe of right lung some consolidation; the bronchi containing catarrhal deposit; the heart and other organs healthy.

On removing the calvaria, the membranes of the brain were found congested but not inflamed; a small amount of effusion over the pia mater, with some opalescence of the membrane. The brain was divided equatorially at the level of lateral ventricles, and these were found filled completely with firm and partly organized clots, entangled with the choroid plexus of each side. Upon cutting through and raising the fornix, there was found below it a large firm clot, filling the third ventricle and forming a cast of it. The brain-substance about each ventricle was deeply stained. At a later time (April 22), after having hardened the brain with alcohol, I removed the clots with the pons varolii and medulla oblongata and placed them in alcohol again. The rest of the brain was examined carefully and divided into small sections in search of a lesion; but none was found. April 26, the specimens were floated and examined with great care. I found the clots which had been in the lateral ventricle intimately adherent to and partly covered by the choroid plexus of each side, and that they formed a fair cast of the cavities. The clot in the third ventricle formed a still more accurate cast of it, having the impression of its various irregularities. The fourth ventricle contained a pyramidal clot, filling the lower half and forming a cast of it. This was so accurate as to present a ridge which fitted into the median fissure, and the clot was prolonged downward for about four lines into the ventricle of the cord. The upper part, or base of the pyramid, was concave.

I could not find the origin of the hemorrhage. It did not seem to have come from any vessels of the brain-substance, but rather from the vessels of the velum interpositum, as the clots were in the cavities into which this penetrates. That in the fourth ventricle was perhaps due to coagulation of blood that ran down through the *iter e tertio ad quartum ventriculum*, since its position and shape might easily have been explained by the law of gravity and the contraction of the fibrin.

In view of this rare condition, I questioned the nurse as to the existence of any of the symptoms attributed to cerebral hemorrhages in children. These, added to those already observed and attributed to coryza and pneumonia,—which, it must be remarked, really existed,—gave the following *ensemble:* respiratory difficulty, dilated pupils, restlessness, rolling of head and eyes, rather stiff position of limbs, occasional tremors.

These symptoms, however, were not sufficiently marked to attract the attention of the nurse, and I never saw any of them except the first. Consequently, the lesion found at the autopsy took me entirely by surprise. The pneumonia found was slight,—so slight that it was only because the autopsy had not at that stage furnished me with a satisfactory explanation of the death that I examined the brain. Had the lung been extensively involved, I should have looked no further, and so missed what was afterwards discovered. On looking over Trousseau, Niemeyer, West, and Meigs and Pepper, I can find record of only ten cases of true cerebral hemorrhage in children, *i.e.*, hemorrhage into the substance of the brain as distinguished from hemorrhage between the membranes. All of these are mentioned by the last-named writers. Eight of them are said to have been observed by Rilliet and Barthez, and two by West.

There is recorded in the post-mortem book of the Philadelphia Hospital a case of a child aged ten days, born after a prolonged labor, which had hemorrhage between the membranes and into the substance and ventricles of the brain. The following notes are taken from the book, as recorded by Dr. Jos. Berens:

"Upon the dura were found a few soft, dark clots, amounting in all to about f℥i of blood. Beneath the dura, upon the convexity of the brain, were a few very small clots. Upon the base, surrounding the cerebellum, pons, and medulla, was a large effusion of blood, partially coagulated and of a tarry color. The amount of blood was estimated at f℥i. There were also many points of subarachnoid extravasation, varying from the size of a pin's head to that of a silver three-cent piece. There was a moderate sub-arachnoid effusion of cloudy serum, with flattening of the convolutions. The lateral ventricles were filled to the utmost by coagulated blood, very dark in color. In the anterior portion of both corpora striata there was a clot the size of a pea, light in color, and attended with some yellow staining of the neighboring tissue. In addition to these there were scattered points of hemorrhage

throughout the brain-substance, gray and white. The brain-substance was congested and œdematous under hydrostatic test.

"*Cord.*—A considerable amount of blood effused on the surface of the dura. Beneath this in the arachnoid space there were also a number of small, soft clots and a quantity of fluid blood."

The peculiarity of the case now reported consists in the age of the clots, the fact that they occupied peculiar situations, and that there was no hemorrhage between the membranes or into the substance of the brain, anywhere.

So far as the diagnosis is concerned, it appears that conditions like this case can be determined only with the greatest difficulty. Meigs and Pepper quote Rilliet and Barthez as saying, "Cerebral symptoms have been observed to exist; but of so unusual a character, and so different from what have been assigned by writers to apoplexy, that they could not lead to a diagnosis of the disease."

The specimen was referred to the Committee on Morbid Growths, which reported, April 27, 1876, as follows:

"The brain presented by Dr. Dulles, and referred to the Committee on Morbid Growths, is found so much mutilated by previous dissection, that a complete and satisfactory report is unfortunately not in the power of your committee. Upon examining the external surface of the brain no evidence of any traumatic injury could be found, and there are none of the products of an acute or chronic inflammatory process observable upon any of the membranes. Both the gray and white substance of the brain are normal in consistence, the latter tinged of a red color, particularly in proximity to the lateral ventricles. In the left lateral and third ventricles are found clots of coagulated blood moulded and filling each ventricle; in the right ventricle a very small clot of blood is present; the fourth ventricle was empty. Owing to the condition of the parts, after a minute examination it was not possible to ascertain from what vessel or vessels the hemorrhage had originally occurred.

"A microscopic examination of the arterial vessels at the base of the brain demonstrated nothing abnormal in their structure. The basilar artery contained a clot of unorganized blood extending about a quarter of an inch below its bifurcation."

PROFESSOR STROMEYER died suddenly, of apoplexy, on the morning of June 15.

REPORT OF FOUR CASES OF HERNIA TREATED BY THE "SUBCUTANEOUS SILVER-WIRE SUTURE" METHOD INVERTED.

BY GREENVILLE DOWELL, M.D.,
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IN the Transactions of the Texas State Medical Association for 1873 I published an article upon the subject of the radical cure of hernia by a new operation. Since this time the number of cases operated upon has been raised by myself and associates to ninety-six, with eighty cures, sixteen failures, but no deaths. Of the sixty-eight operated upon by myself, sixty have been successful.

The following cases, which have all occurred since April, are reported as examples of the whole.

Case I., partial failure.—P. B., colored; aged about 39; stout and healthy. Hernia right side, seventeen years' standing; large scrotal; April 11, 1876.

Operation for radical cure by our plan of subcutaneous sutures with silver wire. Patient put under chloroform by Dr. Ornim Knox, of Jonesville. We reduced the hernia; then having made three lines, one over centre of tumor, and one on each side, about half an inch from the centre four stitches were put in, one below the other. This was a bad case for the operation, as the tendons were severed above the ileo-pubic ligament for two inches, and the hernia was direct at the line of the operation, but probably had become so by long standing, as the opening was so large.

April 13.—Doing well; scrotum slightly swollen, but not painful; no fever.

April 19.—No fever; scrotum much swollen, but soft; ligatures removed; cure appears perfect; bowels had been moved yesterday.

May 30.—Saw patient; bowel had returned to sac on the night of the 24th, while in bed, he having been ploughing and riding. The swelling of the scrotum had never been reduced, and I ought to have put in a seton through the sac or used Wurtzer's needle, so as to cause destruction of old sac. This was neglected in this case and was one cause of failure, but the great distance to which the tendons were separated was the main cause, and in subjects as old as this man can rarely be pulled together at one operation. Applied a Pomeroy truss and left him at work and comfortable. I will reoperate in October.

Case II.—April 19, 1876, H. S., aged 69; knock-kneed from a boy; ruptured on left side; very large scrotal. He suffered eighteen years ago with strangulation, and was operated on by Drs. Ornim Knox and H. P. Perry; recovered, and was cured for one or two years. Ever since it has been getting larger, until

now it is as large as a boy's head. Assisted by Dr. Knox, who gave chloroform, I operated by the "subcutaneous suture." Reducing the hernia, we put in four stitches, one below the other, about one inch apart, and pulled the parts well together, overlapping the tendons.

April 21.—Doing well; no fever; ordered the bowels to be moved with Epsom salts.

April 27.—Stitches taken out; had not had any fever; bowels had been moved; scrotum tender, but very little more swollen than at time of operation. Operation a cure. Dr. Knox writes me, June 25, "*H. S. a perfect cure.*"

Case III.—J. B., aged 7; healthy; hernia, scrotal, left side, three years' standing, supposed to be caused by having had a rope tied around the body. Dr. Knox gave chloroform. One ligature completely closed up the opening.

April 25.—Up, walking about; no fever; very little swelling of scrotum, a little red.

April 28.—Ligature taken out.

I was taken very sick about this time with bilious fever, and did not see him any more until May 20. Upon examination, found a swelling of the cord; pronounced it hydrocele of the cord, and stated that it would require a second operation.

May 26.—Operated on the cord, putting in three ligatures, one below the other.

May 28.—Testicle much swollen; old sac enlarged; no fever. Gave him one-eighth of a grain of morphine to keep him easy and make him sleep. No fever; walking around the room, and even out in the yard; has good appetite. I left next day for Philadelphia. Dr. Knox writes, June 25, J. B. "perfect success;" family much pleased.

Case IV.—May 26, 1876, I. I. P., aged 28; native of South Carolina; hernia, testicle, right side; no scrotum on that side; testicle lodged in superior ring; swells and gives great pain, especially when he lifts or rides much; was much swollen yesterday. Dr. Knox gave chloroform. Present, patient's father and others. Mr. P. said his son had been born with no scrotum on that side, and the testicle had not come out more than we then saw.

Operation.—Testicle pushed up and back; four ligatures put in subcutaneously, one below the other—I say below, as the upper stitch must always (in this method) be put in first—making one line in centre and two on each side; having moved the bowels well, as is my custom, and also moving them before taking out the stitches, giving morphine whenever patient is in pain, and applying cold lard and laudanum water when it is soothing and pleasant. After pushing in the ligatures we put lint over them, and poured collodion over this, which excluded the air, and compressed the parts. I also when they cut the wires put on lint, and poured on collodion.

May 28.—Had to take some morphine to keep easy; no fever; bowels ordered to be moved with Epsom salts. Dr. Knox writes, June 25, "Mr. P. well; walking about."

BONWILL'S METHOD OF ANÆSTHESIA IN DISEASES OF THE EYE.

BY P. D. KEYSER, M.D.

IT is a well-known fact that in ophthalmology there are many little operations of a very painful nature that occur almost daily in hospital as well as in private practice, which are really too quickly performed to require the use of an anæsthetic, but which in many cases, from the great pain and sensitiveness of the patient, cannot be made without it; and in many if not the great majority of cases there is such an after-sickness and depression from the use of ether or chloroform that it seems very hard that one should suffer so long with this dreadful nausea for a little affair that could be accomplished in a few seconds without any after-suffering, if the patient could only hold still for a moment.

How grateful, therefore, should we feel for the suggestion of anything to take the place of ether or chloroform in dulling sensation in cases of small operations where complete anæsthesia is hardly necessary!

Some considerable time ago my friend Dr. W. G. A. Bonwill, of this city, related to me his experience with the use of air as an anæsthetic in dental operations, and asked me to try it in my practice; since which time I have tried it with very happy results on many occasions. My experience with it has been, however, entirely in small or rather short but painful operations, as its anæsthetic action is not long enough for larger or more tedious manipulations.

Foreign bodies in the eye are of very frequent occurrence, and in children and nervous people, who will not remain quiet, very difficult of removal. In such cases I have found that by getting the patient to make deep and quick inspirations of the ordinary air of the room for a few seconds to a minute or so, the eye can be opened without difficulty, and the foreign body removed from the cornea or under the lid, with ease, and without the least pain or inconvenience to the patient.

In cases of painful hordeolum, which require to be opened, it affords a most happy assistance.

In slitting up a canaliculus, as well as in the introduction of Bowman's probes, it is equally efficient.

It is to my mind one of the simplest and

at the same time one of the most beneficial agents in small operations about the eye that has been presented to the profession; its application being very easy, requiring no recumbent position on the part of the patient, calling for no apparatus for its administration, and being perfectly free from any of the disagreeable effects of ether and chloroform.

To produce the proper effect the patient must open the mouth, breathe freely, quickly, and deeply, and after a few seconds or minutes of such steady continuous breathing the symptoms of partial anæsthesia supervene, as is evidenced by the absence of feeling on pinching or pricking with a pin. At this stage, any operation should be made. The anæsthetic effect passes almost immediately away, and the patient feels no pain in the operation if done dexterously and without hesitation.

From my experience I take pleasure in recommending its use very highly, not only to ophthalmologists, but also to the general surgeon, where minor operations are to be performed.

Any one interested in the subject I would refer to an article by Dr. Bonwill on "Air as an Anæsthetic," in the *Pennsylvania Journal of Dental Science.*

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TRANSLATIONS.

The Poisonous Principle of Spoiled Corn.—Prof. C. Lombroso (*Centralbl. f. Med.*, 1876, p. 228) describes two poisonous principles derived from spoiled maize: an oil, soluble in alcohol, and an alkaloid. From these may be derived a body closely resembling strychnia, possessing all the chemical and most of the physiological reactions of the latter alkaloid. In frogs, not only tetanic symptoms, but also those of paresis and narcosis, were induced by administration of the oil. In chickens, after prolonged administration of the oil, only paresis and convulsive movements of the head, with inclination to retrograde movements, were induced. The administration to chickens of the alkaloid, on the other hand, induces death in a few minutes, with previous paralysis of the limbs and chronic convulsions. Administered to locusts, fish, mice, etc., the alkaloid gives rise to symptoms similar to those of strychnia-poisoning. Prof. L. concludes, therefore, that two distinct poisons are present in spoiled maize. x.

Influence of Uræmia upon the Temperature in Primary Bright's Disease.—A. Strümpell (*Centralbl. f. Med.*, 1876, p. 232; from *Arch. d. Heilk.*, xvii. s. 36) states that among the cases of Bright's disease treated in the Jacobshospitale in Leipsic, between the years 1850 and 1874, there were one hundred and seventeen chronic and fifty-four acute, uncomplicated cases. Among the first, uræmic symptoms occurred in thirty-two; among the latter, in eighteen. Sex seemed without influence. As regards age, uræmia was rare after fifty years; but the prognosis was more grave. In seventeen cases of uræmia among the chronic series, where post-mortem examination was made, there were found eleven contracted and six enlarged kidneys. Since in the former the urinary secretion is not usually diminished, even before the appearance of uræmia, Strümpell thinks that in case of the contracted kidney it is not retention of the urinary constituents, but œdema of the brain, upon which the uræmia is dependent. The temperature almost always rose above the normal, at least in the evening, but otherwise showed no characteristic variations. Occasionally a marked rise to 41.5° (106.7° Fahr.), accompanied by chill and sweat, was observed. Every variation from the normal, whether above or below, is of unfavorable import in uræmia. x.

Post-Mortem Appearances in a Case of Progressive Muscular Atrophy.—Charcot and Gonebault (*Centralbl. f. Med.*, 1876, p. 236; from *Arch. de Physiol.*, 1875, No. 5) found the following appearances. No change in hemispheres, cerebellum, pons, or medulla oblongata or their nerves. The gray substance of the cervical and dorsal medulla spinalis was greatly altered, from the lower portion of the cervical enlargement down, gradually decreasing downwards and outwards. The nerve-cells and the nerve-fibres of the anterior gray cornua had disappeared; the capillary vessels were greatly developed, the parietes of the smaller and larger vessels were thickened. The lumbar portion of the cord and the lateral columns were normal. In the cervical and dorsal region, the portions of the cord near the emerging external roots were sclerosed;

the change being proportionate to the intensity of that which had taken place in the gray cornua. The few ganglion-cells present were very much diminished in size, without processes, more rich in pigment than normal, but still containing nucleus and nucleolus. The anterior roots of the cervical region were atrophic; empty sheaths frequently containing large nuclei appeared in place of the normal fibrillar contents. The posterior roots seemed normal.

As to the peripheral nerves, one phrenic and several intercostal nerves were examined; more than two-thirds of the nerve-tubules (in hardened sections) were wanting, by a process similar, as it would appear, to that induced by an external wound. The muscles about the shoulder and the upper extremities were for the most part atrophic; there seemed to be a peculiar atrophy of the primitive fasciculi, without any marked alteration in the fibrils, and without any excessive development of the interfibrillar fatty tissue.

x.

Disease of the Tongue apparently caused by the Presence of Leptothrix Buccalis.—Ubisch (*Centralbl. f. Med.*, 1876, p. 312; from *Berlin. Klin. Wochenschr.*) had as a patient a man 30 years of age, an inveterate tobacco-smoker, whose tongue had become gradually enlarged and thickened until it gave pain on motion and interfered with phonation. His appetite and digestion were good. Examination showed the tongue wider and thicker as well as of more firm consistency than the normal. The whole surface was covered with a tenacious, shining, opalescent coating, thin towards the tip of the tongue, but growing thicker posteriorly, so that the circumvallate papillæ and glands seemed imbedded in it. The under side of the tongue was covered with a similar coating, but the sides were free.

The gums, palate, tonsils, etc., were quite normal. The coating could not be entirely removed, but seemed imbedded in the tissues. Microscopic examination showed the coating to be one mass of leptothrix.

The remedies indicated were parasiticides. The surface of the tongue was rubbed with a three per cent. solution of carbolic acid, and the mouth was frequently rinsed out with a weaker solution of the same. In a few weeks the entire coating had disappeared, the thickening of the tongue had diminished almost or entirely to the normal, and every movement could be made without pain or annoyance.

x.

The Action of Chloroxalethylin (C. Bing: *Arch. f. Exp. Path.* etc., iv. p. 340. Abstract in *Centralbl. f. Med.*, 1876, p. 315).—The alkaloid called by Wallach chloroxalethylin has the following formula: $C_6H_9ClN_2$. For purposes of experiment a watery solution is most convenient. In frogs this causes after a short time paralysis of both motor and sensory ganglia of the spinal cord; later, paralysis of the peripheral nerves. In general it acts like coniin. If a frog's nerve be dipped in a one to two per cent. solution of the alkaloid, after some five minutes the excitability of the sensitive fibres is destroyed; that of the motor fibres holds out somewhat longer. Direct muscular excitability also becomes lessened under the immediate action of a two per cent. solution. The activity of the heart could no longer be restrained by exciting the nervous sinus. In fact, the poison paralyzes the peripheral ends of the vagus; it forms, in other words, a new antagonist to muscarin. x.

Communication between the Large Intestine and the Bladder.—A man, 60 years of age, somewhat broken down in health, and suffering from chronic cough and diarrhœa, was seized with catarrh of the bladder. On examination, the urine was found to be thick, cloudy, yellowish-green in color, strongly alkaline, with a specific gravity of 1020. It had a perceptibly feculent odor. The next day the patient passed small lumps of fæces, and suffered greatly from pain in the urethra. Injections of warm water were employed, and tannin, together with opium, was administered internally. Experiments, by injecting coloring-matter, etc., into the rectum, showed communication between the large intestine and the bladder. The passage of fæces into the bladder ceased shortly after, but the patient died suddenly while at stool. No post-mortem examination could be obtained. x.

Neuralgia of the Lesser Internal Cutaneous Nerve of the Arm (Nerve of Wrisberg).—A. Seeligmüller (*Centralbl. f. Chir.*, 1876, No. 17; from *Arch. f. Psych. u. Nervenkr.*) gives the case of a woman, 43 years of age, who had suffered

eight years with severe shooting pains, commencing just above the left olecranon, extending to the posterior portion of the axilla, and across over the inferior angle of the scapula, occasionally also around to the left mamma. The direction taken by these pains was evidently the course of this cutaneous nerve. Neuralgia of the ulnar nerve could be excluded, because the pain terminated at the elbow, whereas in neuralgia of the ulnar it would have extended to the fingers. Use of the battery soon resulted in entire relief of the symptoms.

X.

A CONTRIBUTION TO THE SYMPTOMATOLOGY AND THERAPEUTICS OF PERFORATING ULCER OF THE STOMACH.—Dr. Loudon (*Wien. Med. Presse*, 1876, Nos. 21–22) gives an account of the following interesting case which recently came under his care. The patient, a man some 48 years of age, had lived a number of years in Egypt, where he had suffered from pernicious malaria and hepatitis. Subsequently he suffered with loss of appetite, sour eructation after taking food, heartburn, wind, habitual constipation, with occasional circumscribed pain in the pit of the stomach. Hard or acid kinds of food seemed particularly apt to arouse pain in the stomach. From time to time the patient suffered sudden and severe attacks of cramp, in which the pain appeared to radiate, now towards the breast, now towards the back, lasted for hours and days, and terminated in vomiting.

The various remedies, opium, quinine, bismuth, Fowler's solution, etc., proving of no avail, change of air was recommended, and the patient came to Germany.

During the return-voyage all symptoms of the disease were absent in spite of severe sea-sickness; but following a debauch in which the patient indulged upon landing, the various symptoms returned with renewed vigor. On his return to Germany he was placed upon various kinds of diet, and ordered different sorts of treatment. Bicarbonate of sodium, calcined magnesia, nitrate of silver, and injections of morphia were used. By way of nourishment the patient took Tustle's milk-powder. For a time the more severe symptoms, particularly vomiting of blood, appeared to remit; but after a short interval, vomiting and purging of coffee-grounds matter became so much more marked that absolute rest of the stomach was ordered, and the patient was nourished by nutritive enemata, which seemed also to satisfy his appetite. During the use of this means of nourishment, the stomach gave no trouble; but so soon as solid food was again taken the various symptoms returned, though not so severely as before.

It was evident on the patient's arrival at Carlsbad that he was suffering from some serious affection of the stomach. The particular symptoms, hæmatemesis, attacks of cardialgia, the existence of a localized area extremely sensitive to pressure, all pointed to some ulcerative process in the stomach. The history seemed to indicate, moreover, a perforating round ulcer. No ground existed for suspecting tubercle. Carcinoma was excluded on account of the fact that no cancer-cells were found in the vomited matters, as well as because of the absence of a nodulated circumscribed tumor in the epigastrium, and the absence of carcinomatous cachexia or any family history pointing to cancer.

In addition to the Markbrunnen water, which seemed indicated, the food best calculated to aid in relieving the gastric trouble appeared to be such as would quickly pass through the stomach, and the digestion of which should for the most part be performed in the intestine. As milk best fulfils this condition, half a pint was ordered to be taken, fresh and warm from the cow, four times a day.

In order to prevent coagulation in large lumps, the milk was taken slowly, a spoonful at a time, and sometimes mingled with toasted rusk. The Markbrunnen water was taken at first only to the extent of a glassful a day in swallows, but was gradually increased to three glasses. Enemata of Sprudel water were employed to combat the constipation. Under this treatment the patient gradually improved. In the course of a couple of weeks the milk-diet was supplemented very gradually by other kinds of food: raw eggs beaten up with a little Liebig's extract of beef; then a few days later meat solution in small quantity, made by the Leube-Rosenthal method, was allowed. Under this careful regimen the patient rapidly improved, the various symptoms diminished, and finally in about six weeks he was discharged. As to the value of the mineral water in this and similar cases of gastric ulcer, opinions may differ; as regards the rationale, however, Dr. Loudon quotes from Ziemssen as fol-

lows: "The neighborhood of the gastric ulcer is unusually the seat of catarrh, which commonly gives rise to excess of acid in the stomach. Strongly acid gastric juice irritates the ulcer, and hinders granulation and scarring over. This acid must therefore be diluted or neutralized from time to time, and this is best effected by Carlsbad water. In addition, however, the salts contained in this mineral water must be taken into consideration. The carbonate of soda not only neutralizes the free acid, but prevents further acid fermentation. The sulphate of soda and the chloride of sodium aid in emptying the contents of the stomach downwards. The high temperature of the natural water also appears to be of use in assuaging pain." As regards the etiology of the perforating ulcer in this case, Dr. L. attributes it to a localized embolism in the capillaries of the stomach brought on by a collection of pigment, the well-known result of long-continued malaria. x.

Embolism of the Arteries of the Lung following the Use of Esmarch's Bandage on the Lower Limbs.—J. V. Massarn (*Centralbl. f. Med.*, No. 20; from *Berlin. Med. Wochens.*, 1875, No. 48) gives the following case. The bandage was employed in a woman who was suffering from loss of blood, the result of placenta prævia. The symptoms of anæmia rapidly returned whenever the bandage was loosened on account of the pain it caused. As this was loosened for the third time, thirty-two hours after delivery, collapse, dyspnœa, palpitation of the heart suddenly supervened, and, although the bandage was again applied, death occurred at the end of two hours.

Clots one to two cent. long by three to four mm. thick were found in the pulmonary arteries of the third order, and also in the saphenous veins of both thighs. The author regards the bandage as a cause of embolism in this case, and cautions therefore against its use when there are varicose veins, and also against allowing it to remain too long in position. x.

Treatment of Amblyopia and Amaurosis by Nitrite of Amyl.—Dr. Steinheim (*Berliner Klin. Wochens.*, 1876, p. 230) gives the case of a woman 42 years of age, who, following a uterine hemorrhage, suffered from blindness of both eyes of six days' duration. The right was absolutely amaurotic, the left nearly so. The media, choroid, and retina presented nothing unusual. The papilla n. optici showed a grayish-white cloudiness, and was infiltrated with serum, irregular in contour. The arteries were quite thin, the veins fuller. Both sides were about the same. Nitrite of amyl was inhaled eight drops at a time, repeated as soon as the characteristic symptoms began to disappear. It was found shortly after the second inhalation that the patient could see a little, and, by persevering in these inhalations several times a day for some weeks, sight was restored to a certain degree. x.

Transfusion in Anæmia (*Centralblatt für Chirurgie*, No. 43).—W. Stolz protests against the employment of transfusion in cases of acute puerperal anæmia, asserting that it has not been proven to be of any advantage, and is often attended with grave difficulties. He mentions a case in which the operation was commenced for the relief of great anæmia following an injury during pregnancy, and in which the donor was greatly prostrated from loss of blood whilst the surgeon was seeking a vein in the patient sufficiently large for the introduction of the canula, they being in a collapsed condition. j. w. w.

Preserving Ice.—Dr. Sampson Gamgee recommends very highly the following method of preserving ice in the sick-room. Cut a piece of flannel, about nine inches square, and secure it by ligature round the mouth of an ordinary tumbler, so as to leave a cup-shaped depression of flannel within the tumbler to about half its depth. In the flannel cup so constructed, pieces of ice may be preserved many hours, all the longer if a piece of flannel from four to five inches square be used as a loose cover to the ice-cup. Cheap flannel, with comparatively open meshes, is preferable, as the water easily drains through it, and the ice is thus kept quite dry. When good flannel with close texture is employed, a small hole must be made in the bottom of the flannel cup; otherwise it holds the water, and facilitates the melting of the ice, which is, nevertheless, preserved much longer than in the naked cup or tumbler.

Salicylic Acid for Offensiveness of Breath and Expectoration.—Dr. Da Costa, *Medical and Surgical Reporter*, prescribes salicylic acid, five grains, dissolved, by means of a drachm of glycerin, in half an ounce of water, taken three times a day, in cases where the breath or expectoration is offensive. If internal administration does not accomplish the desired result, it can be used with the atomizer in a solution of similar strength.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JULY 22, 1876.

EDITORIAL.

THE FAR SOUTHWEST.

DWELLERS in the Eastern United States are sometimes led to look upon communities in the far West as less well favored than themselves; as a sort of outlying vigorous growth, separating the higher civilization from the barbarism of the American Indian. There is sometimes not a little of the spirit which swelled in the bosom of the Pharisee in the temple. Texas, although for so many years a State of the Union, has somehow come to be so associated with rangers and Comanches, with bowie-knives and lawless deeds, as to be considered *par excellence* a border State.

Under these circumstances, a piquancy of surprise was added to the pleasurable sensation of finding that whilst we have been stagnating so far as concerns the relations of the medical profession to the law, Texas has made substantial progress.

The law here allows the doctor to come into existence as did Topsy, who "growed;" and too often he partakes of the Topsy attributes. But in Texas, the lives of the community are considered worthy of protection. Possibly this is because in Texas there is no large moneyed college interest, the advantage of which is served by forcing into the profession as many as possible.

In 1872 was enacted the first Texan law regulating the practice of medicine. It compelled every one to register, and to state when and where he graduated. To superintend the registration, the court was directed to appoint in each county a board composed of from three to five members who had graduated in some medical school recognized by the American Medical Association. This board had power to judge whether a diploma offered was or was not satisfactory, and, if the would-be practitioner was unpossessed of a proper diploma, and had not been already some (five, we believe) years performing the active duties of his profession, to compel an examination before their body. This law is stated to have done a great deal of good. One of its most notable fruits was to drive very many gentlemen into temporarily resigning their practices in order to attend lectures and graduate in some respectable college.

Last winter the act of 1872 was abrogated by the passage of one which requires *every one* who wishes to enter upon the practice of medicine in the State to pass before an examining board appointed by the presiding judges of the district court of the judicial district. We take the somewhat unusual course of printing the bill in full (see Notes and Queries), on account of its importance and to do honor to the State which has so boldly stepped to the front. It will be noticed that the act does not require an examination upon the subject of therapeutics, and thereby avoids the homœopathic difficulty.

Another evidence of the spirit which exists in our Southwestern confrères is seen in the history of the Texas Medical College at Galveston. Not long since, for some reason or other, it was deemed expedient to reorganize the old college at Galveston, and to obtain a new charter. In this charter it was made incumbent upon the trustees, whenever a vacancy occurred in the corps of professorships, freely to advertise said vacancy, and upon a certain date to hold a public concours, open to all comers, for the professorship. Under the rulings, the board of professors of the old college was declared out of existence, and such of the teachers as desired connection with the Texas Medical College were to enter the list on the same footing as other competitors.

INHUMANITY AT OLD ST. BARTHOLOMEW'S.

LONDON may be the centre of the civilized world, and its medical charities are undoubtedly the most magnificent the world has ever known, but it seems that there are still lessons to be learned. We see by an exchange that recently a woman was burnt in that city upon her neck and face, and, as soon as the flames were extinguished, was trundled off to St. Bartholomew's Hospital in a hand-barrow. Her wounds were dressed, but, as she was refused admission, she was trundled back again to her lodgings, and to death. The coroner had something to say about the sightliness of a burned and dying woman being hawked about the streets of London. What we would say is that humanity, or, as we would think in this country, common decency, demands the existence of the rule recognized by all our hospitals,—that all accidents are to be received at once if brought within twenty-four hours of their occurrence. Will St. Bartholomew's Hospital, which boasts of her seven hundred years of blessings, learn a lesson from our young institutions? Certainly such an occurrence as we have narrated is a blot upon her escutcheon.

CORRESPONDENCE.

LONDON LETTER.

RECENTLY our medical parliament was sitting, and the great questions of medicine, or rather of medical policy, were under discussion. Of course, one of the first matters to be taken up was the bill just brought into the House of Lords by Lord Carnarvon, for the regulation of vivisection, and bearing the unhappy title of "A bill to prevent cruelty to animals." If it was the design of its introducer to deliberately insult the scientific investigators of Great Britain, he has succeeded admirably as regards the title of the bill. If it was his intention to restrict scientific inquiry while permitting any and every other form of inflicting pain upon animals to remain unchecked, he has been equally successful. Boys may still continue with impunity to pull off one by one the legs of a "jenny-spinner" in order to watch the efforts of the crippled animal to get away; the bill does not contemplate any limitation of such laudable curiosity in the infant mind. But if a scientific inquirer do an injury to a newt's tail in order to watch the growth and progress of inflammation, he can only do it under the most hampering restrictions. To a busy man it is most inconvenient to have to attend a certain registered place in order to perform experiments, and to those who know what an amount of time it takes to get to and fro in London, it will be readily apparent that such restriction is a practical form of prohibition, to a great extent at least.

The representatives of the profession have taken the matter up warmly, and strong efforts will be made to modify some of the most objectionable clauses. If dogs and cats are prohibited, it will be next to impossible to conduct inquiries into digestion and assimilation, unless a cheap breed of pigs could be instituted. To prohibit experiments on dogs and cats, and yet to leave monkeys unprotected, is surely monstrous, and an outrage upon the claims of blood relationship, if Mr. Darwin is to be trusted. It is readily obvious that, to the promoters of the bill, the saving of their own feelings in the protection of their domestic pets from any possible experimentation was the first consideration. Whatever may be done, there is no doubt that the present government intend to conciliate their clerical supporters by biting the heel of science in the hampering of scientific instruction in England.

The medical parliament is a body worthy of some little description. It consists of a representative from every body capable of giving a medical license which is registrable,—nineteen in number,—and several others appointed by the Crown. It is curious to watch this body from the gallery where strangers are admitted; and having an hour to spare the other afternoon, I dropped in and listened to a discussion. At the top of the table sat Dr. Acland, the representative of Oxford, with the calm neutral gravity becoming a president; next to him, on his right, sat Stokes, of Dublin, then Sir William Gull, next Professor Wolleston, and then again the representatives of the English Universities and the Crown nominees. Opposite the president sat Dr. Fleming, of Glasgow, with Dr. Haldane, of Edinburgh, on his left hand, and on his right the representatives of the Scotch and Irish licensing bodies, in the middle of whom sat Professor Humphrey, of Cambridge. Thus it will be seen that the English members of the council faced, and so were opposed to, the other members. Whether this is the usual arrangement, or it arose out of the subject under discussion, I cannot say. On the large circular table was an inner ring of books, especially the transactions of the Council,

some Government reports, denominated blue books (from their covers), and a chaotic *embarras de richesses* of medical journals and allied current literature. The different members were variously engaged, giving attention to the speaker and combining with that the discharge of some personal matters. From time to time a member would be seen to rise and walk to one side of the room where there are a number of little cupboards, each bearing a number indicating to whom it belongs, and open the door of this little recess and either merely refer to, or perhaps take out, some papers, and then noiselessly return to his seat. There is over all an air of the staidest decorum, except when an Irish member is chaffing an opponent.

When I entered, Lister, of Edinburgh, who is remarkable for his regular-cut features and his air of amiability, in which last he rivals even Dr. Acland, was declaiming against the projected one-portal system, which is opposed by the Scotch and Irish members generally. He spoke steadily and quietly, laying down the different points of his argument clearly and with distinctness, in what was an ex parte statement on the side of the opposition. He was followed by Sir Dominic Corrigan, who subjected Sir William Gull to some chaffing criticism, which was clearly unpalatable to the fashionable physician. The opponents of the one-portal system have a great deal to say, and they urge it forcibly, but it seems clear that in time they must give way to a "staats-examen." If the Scotch and Irish students were the unquestioned superiors of the English, the position of the opponents of the scheme would be much strengthened; but while it is notorious that a large proportion of the examining bodies of the two countries stand towards the bottom of the list in the requisites for their examination both as to severity and to requirements, they must expect their statement to be received with some questioning. Doubtless with nervous men it is a matter of the greatest moment to be examined by those who know them, and who, seeing their condition, will encourage them to do themselves justice; but this cannot weigh against the many arguments on the other side of the question. One good result of this agitation in favor of one general state-examination is that the different examining bodies in Scotland and Ireland, whose standard was somewhat low, are following the example of the English College of Surgeons, and increasing the severity of their examinations and the amount of their requirements.

Of course, there exists here in Great Britain the same difficulty that you in the United States have to contend with, especially as regards the Western States, viz., that if there are not some medical schools where the examinations are easy and the expenses small, a large number of small places must go without medical men altogether. The argument is, there had better exist places where men can get some information at a cost within their means, than that such imperfectly educated persons should be abolished altogether. Better have a practitioner of this sort in a neighborhood than that it should be entirely destitute of medical talent, and left to amateur medicine or to quackery.

It is the old argument of half a loaf being better than no bread, and has certainly a great deal to be said for it. There can be no question that many a thoroughly good and useful practitioner would have been lost to the world if such facilities for getting a smattering of medical lore had not existed. Still, it is equally certain that a better education would have still further developed the natural qualities. It is not lack of brains, but the lack of acquired information, that limits the powers of many practitioners. Good sound sense is all the better for extensive information on special subjects. But, unfortunately, our literature does not yet contain the class of books which such practitioners essentially require. The hand-books are too cramped, and are written too specially for the student and with reference to the examination-table, to be thoroughly useful to the practitioner. Special treatises are apt to be too recondite and too extended for him, so that they remain an ornament to his library rather than substantial aids to him in his self-education. What he essentially requires are works which will give him the practical part of physiology and pathology, together with the lines of treatment broadly laid down, so that he can get a good grasp of principles; and these works do not yet exist.

With many practitioners it must often happen that they must administer chloroform and perform their obstetric operations single-handed. Here the administration of the anæsthetic causes great anxiety. In such circumstances the following plan will be found very satisfactory. Doubtless for ordinary operations ether is taking, or, one might almost say, has taken, the place of chloroform. No sooner, indeed, was the brilliant introducer of chloroform dead, and the powerful advocacy of his enthusiastic as well as able pen no longer available, than the claims of ether began at once to assert themselves, and the reign of the more dangerous chloroform began to wane. Still, for obstetric purposes chloroform is yet chiefly used, and such use has been found singularly free from danger. A pleasant, safe, and economical method of administering it will be found in placing a handkerchief in an ordinary tumbler, and then dropping some chloroform upon the handkerchief, the tumbler after this being held to the nose. The advantages of such plan are these. The tumbler cannot be so applied as to entirely exclude an admixture of air along each side of the nose. Then but a small quantity of chloroform is used, for as

soon as each pain is over the tumbler can be placed bottom upwards on a plate, and the loss by evaporation reduced to a minimum. So slowly does the evaporation take place that the medical attendant can add the chloroform required at intervals himself, and so be sure of the quantity. Further, in emergencies the patient may administer the chloroform herself, the glass falling from the hand as soon as unconsciousness creeps over her. In this respect this plan is much superior to the old one of giving the anæsthetic on a handkerchief alone, which often kept its place after the hand had lost all command over it. As a means of administering chloroform in ordinary cases the practitioner will find this plan to possess great advantages, and to secure the patient very safely against danger as well as to be most convenient and economical. Where it is necessary to intrust the administration to a nurse while the medical attendant is engaged otherwise, by this means all risk is avoided and occasional supervision is all that is necessary.

The question of the utility of salicylic acid in the reduction of febrile temperatures is attracting a great deal of attention, but the results are very far from uniform. It would appear that in some hands this agent has produced free diaphoresis, while in the hands of others it would rather seem to have acted as digitalis does as a febrifuge, viz., raising the blood-pressure and so lowering the temperature, according to the rules formed by Ackermann and by Heidenhain. There is a certain but definite amount of contradiction involved in these different effects, and it is very desirable that the *modus operandi* of salicylic acid be first clearly found, after which it will be much easier to apply it in practice. A great deal of the present difference, indeed antagonism, of opinion about the usefulness as well as the use of many apyretic remedies, takes its origin in confused views about the cause of febrile temperatures, and the method of action of the febrifuges in general use. A rise of temperature may occur in two totally distinct ways. There may be an accumulation of body heat, rather due to defective and impaired heat-loss than to excessive heat-production. Such is the rise of temperature in the ordinary fevers, where there is a dry, unperspirable skin, and a loss of that heat-dispersion which is produced by the evaporation of the water exhaled by the skin. Direct experiment has demonstrated this lack of water-exhalation in rising fever.

Of course, here the line of treatment to be pursued is that of the administration of diaphoretics, especially those of a nauseant character. Such agents throw the sudoriparous glands into action, increase the bulk of blood in the external or heat-losing area, and, in doing so, diminish the amount of the blood in the internal or heat-producing area, by which means heat-loss is increased and heat-production lessened; and so the temperature falls. Such remedial agents we possess in aconite, antimony, veratrum viride, chloral, etc.

But when there is fever with a moist and freely perspiring skin, it is at once clear that here the above agents are unsuitable, and in practice will be found inoperative. In these forms of pyrexia the rise of temperature is clearly not due to defective heat-loss, for the loss of heat by the moist skin is higher than the normal loss, but to an excessive heat-production. Such form of pyrexia is commonly seen in suppuration in the planes of areolar tissue in the pelvis after parturition, and the temperature may be 104° Fahrenheit, or more, with a skin bedewed with perspiration. Here it is useless to give aconite or any nauseant depressant; a totally different plan of treatment must be pursued. It is here necessary to strike at once directly at the heat-production.

Quinine,—which, according to the elaborate work of Binz, of Bonn, exercises a profound influence over oxidizing processes,—in full doses, together with digitalis, which is no mean febrifuge in forms of pyrexia where the blood-pressure is low, and some mineral acid, will be found to be the most useful combination here.

It is of primary importance that the way by which salicylic acid lowers temperature be determined, before it can be applied to the set of cases to which it is adapted. The proper cases for its use have been pitched upon by some, while others have resorted to it in unsuitable cases, and this is the probable explanation of the discrepancies which exist. The clearing up of the manner of the action of this new remedial agent will probably do much towards giving us more definite opinions as to the origin of the different pyrexiæ, and of the reasons why certain measures are adapted or unfitted for the treatment—*i.e.*, the successful treatment—of certain cases; indeed, as to the why of success or failure.

To some it may be a matter of curiosity to know what the human stomach will hold in an emergency. A lad of seventeen, at Sheffield, a little time ago made an experiment in this direction, with untoward results, however. He managed to get down a potato pie, a plum pudding, some gingerbread, a rice pudding, five squares of Yorkshire pudding, three basins of soup, beer, lemonade, and water; after which he died. There is no account of the size of the puddings or the basins of soup; but they are not niggardly in the matter of victuals in Yorkshire, and the sum total represents a capacity in the eating line which can be but rarely attained. There is an old saying, "to eat like a Yorkshire man, and drink like a Devonshire man." The evidence as to the droughty character of the men of Devon may or may not be of a valid character, but this essay on the part of the Yorkshire lad, albeit it ended so unfortunately,

shows that the repute of the eating capacities of the Yorkshire "bites" rests on a solid foundation.

The illness of Sir William Fergusson continues with but slight change. He is suffering from advanced renal disease, and it is gravely feared that we will have no more among us the cheerful smile and the kindly tones, still strongly tinctured with his native Doric pronunciation, with which all were so familiar, for Sir William was socially a favorite.

The impression is strong in the profession that the anti-vivisection movement is supported by persons of the highest position, and that even Her Majesty herself feels strongly on the question. Of course, this is no evidence of the truth of the assertions of the enthusiasts who furnish so freely their views on the subject, of which they usually show themselves utterly and entirely ignorant; but it demonstrates their success in diffusing their views. They are now rapidly changing their front, and their intention is to starve out the different medical charities if they cannot otherwise arrive at their ends. With the present depression of commerce as a cause and this outcry for a pretext, there is room for the most serious apprehensions as to a probable falling off, and a large one too, in the subscriptions to the various hospitals throughout the country. Finally, it is said that pressure from above will cause Lord Carnarvon to proceed with his bill, however much the evidence on the other side may weigh with him.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, APRIL 13, 1876.

The PRESIDENT, DR. WILLIAM PEPPER, in the chair.

A hypertrophied heart and a contracted kidney. By Dr. JOS. G. RICHARDSON. Notes by Dr. H. EMLEN WESTHAEFFER.

R. S. (colored), born in Philadelphia, age 22, single, occupation housework, was admitted into the Presbyterian Hospital, March 18, 1876, and the following history was obtained. Her habits had been good, but her general health poor, she being subject to frequent attacks of illness, characterized by severe pain in the head and left side, under the breast. She had had a cough for the last three months; she also noticed a swelling of her legs for some time past. She has had a poor appetite and been gradually losing flesh, lies chiefly on her right side, as lying on the left side increases the pain in that part. On March 14, she was seized with one of her attacks of severe pain in left lateral region with cough, and applied for admission here the 18th of same month. On entrance, she was very much prostrated, pulse 116, feeble, heart laboring violently, impulse felt over large area of chest; breathing rapid and imperfect, voice weak; cough severe, expectoration made up of large quantities of frothy mucus slightly tinged with blood. Dulness over posterior of both lungs. Respiratory murmur lessened, respiration 36. Tongue coated, no appetite, bowels costive, temperature $104\frac{3}{5}°$. Patient seemed to be stupefied, but easily aroused. She was put on the following treatment:

Quiniæ sulph., gr. ij, every two hours; milk punch every four hours; beef-tea "ad libitum;" poultices were applied to the chest. On the 19th she was ordered

Digitalis pulv., gr. ½;
Opii pulv.,
Ipecac, āā gr. ¼.
One pill, t. d.,

in order to moderate the heart's action. For the cough, she was given a mild expectorant. On the morning of the 19th her temperature fell to $102\frac{4}{5}°$, and she was evidently much easier, but very weak. The symptoms of pulmonary disease gradually yielded to the treatment adopted, and on the 23d had almost disappeared. On this day we succeeded for the first time in obtaining a specimen of her urine, which was found to be highly albuminous. The following evening she exhibited a tendency to stupor, and died comatose on the morning of the 25th.

Autopsy.—Lungs slightly congested. Some adhesion of recent pleurisy over left lung. Heart displaced; great hypertrophy of left ventricle, with extensive destruction of aortic valves. Liver congested and enlarged. The kidneys in a condition of very marked cirrhosis combined with fatty degeneration.

Perforating or corrosive ulcer of duodenum. By Dr. M. O'HARA.

Was called to see Margaret McG., 40 years old, at 4 A.M., March 22. Did not get there until 10 A.M. The statement was made that she had often suffered from similar spells of violent vomiting. She had received medicine during the morning from a drug-store, which had relieved her. I found it to be an opiate, and recommended it to be resumed if pain returned. Ordered 20 grains calomel and castor oil. Diagnosis was obstruction of bowels; the peculiar cause of obstruction not as yet made out.

On the 23d, was worse; no vomiting, but acute pain in epigastric region, extending to spine and region of liver; intense tenderness to touch, of surface of abdomen, notably in region of stomach and liver. There had been no movement of bowels, though active cathartics had been given sufficiently,—salts and castor oil,—and not ejected.

Leeches and hot fomentations ordered, with calomel and free opiates. During the day two visits were made; general tenderness and

the pain, which intermitted at times, continued. At 8 o'clock P.M., was dying from shock and peritonitis. The true cause was unsuspected, but everything indicated perforation from obstructed bowels, a rupture in their texture. She had been constipated by this time seven days, and to say sick, or complaining, almost four days.

Post-mortem examination revealed a well-developed subject with much adipose tissue.

The abdomen was arched with gas from peritoneal cavity, of offensive odor, which escaped with a rush on puncture. The peritoneal effusion was considerable, and had the appearance of intestinal fluid, of a light-brownish color. The odor was not fecal, but somewhat offensive. There were evidences of general peritonitis; the membrane being reddened more on the visceral than on the parietal surface. Patches of recent lymph covered the intestines at numerous points. There were old adhesions between liver and diaphragm. The duodenum was adherent to the liver by old bands which had to be ruptured forcibly, though presenting no connection with the ulcer about to be described. There was no evidence of disease present in any of the abdominal organs, except in upper anterior wall of duodenum, at which point was an opening with clean-cut smooth edge, as if made by a punch, nearly one-fourth of an inch in diameter. The contents of the stomach could be compressed through this, and ran through it before death. There was no other ulcer in stomach or in any of the intestines.

The difficulties of diagnosis in abdominal affections, and the mistakes often made, oblige us to heap up all the information on these matters that we can. Here, without a post-mortem, I would have known nothing of the cause of death, and of the initial cause of the ulcer we know nothing. Corrosive ulcer of duodenum seems to be quite rare. So far as I know, no case has been exhibited before to this Society. It has no definite symptoms of its own, and it may be more common than we think. In this case the cause of death might easily have been overlooked and the whole ascribed to an idiopathic peritonitis. I think it quite likely I might not have noticed it unless aided by the vigilant eye of my friend Dr. Willard, who conducted the post-mortem.

But little has been written of it. Dr. Da Costa, in his Medical Diagnosis, speaks thus of ulcers of the stomach: "There is a disorder with symptoms almost identical with gastric ulceration, namely, the corrosive ulcer of the duodenum. Now, this affection, were it more frequent, would be a constant source of error in diagnosis. It may run an acute, or at least an apparently acute, or a chronic course. In either case it is scarcely distinguishable from gastric ulceration." He refers to Trier's analysis of twenty-six cases, and speaks of signs of dilatation of the stomach and a sensitive tumor in the epigastrium from adhesion with the pancreas, jaundice, etc., as means of differential diagnosis. He states that, with our present means of research, in those chronic cases which run a latent course the diagnosis is impossible. It is more apt to remain latent and lead to sudden and fatal termination than the ulcer of stomach.

Krauss has written a monograph on the subject which I could not obtain.

Niemeyer states that the disease is probably not very rare; that a *necrosis* occurs, and then a solution of the necrosed part of the intestine by the gastric juice takes place. It is more frequent in men than women, the reverse of what occurs in the stomach. In one thousand cases of various post-mortems at Prague Institute, perforating ulcers occurred twice, while in seventy-four cases there were ulcers or their cicatrices. He gives the various symptoms ascribed, but I think what Dr. Da Costa has stated nearly covers the substance of our knowledge of this affection.

Pyelitis and cystitis. By Dr. M. O'HARA.

Called to see M. S., æt. 75, March 22. Stated she had never been sick until about four weeks previously. Had vomiting, loathing of food, and constant urination. No sleep during night, in consequence of frequent urination. Was sitting up. In a day or two became weaker, quite sallow, as if from pyæmia, or chronic disease of the stomach and liver. Had two chills, and constant fever; became exhausted, and died on the 28th.

Post-mortem examination.—There was a hard mass about umbilicus, and below this a pyriform tumor. The hard mass was the right lobe of the liver, very much enlarged downwards, projecting in consequence of being raised by the bodies of the vertebræ behind. The tumor was the gall-bladder distended. The right lobe of liver extended one inch below the umbilicus, the gall-bladder full one and a quarter inch below that.

The left lobe extended downwards and to within two and a half inches of the left sup. spinous process of ilium, and to the left as far as commencement of left lumbar region.

Length of liver, eight inches from above downwards.

Right lobe deeply congested, five inches broad.

Left lobe, six inches long and three inches thick.

Right kidney very large, considerably diseased; pelvis dilated with abscesses, probably from infarction.

Left kidney smaller; commencing abscesses and pyelitis; pelvis slightly dilated.

Intestines normal.

Bladder—coats very thick, filled with pus, exceedingly contracted; contains small concretions; mucous membrane disorganized. The bladder congested and softened in the interior.

The interest in this case centres on the vast amount of disease; and yet the patient stated

she was healthy until a few weeks before death. She had a chill on February 22, and one on February 25, one on March 24 and 26, and still the only complaint was of the vesical trouble.

Case of ranula. By Dr. JOS. G. RICHARDSON, for Dr. WALTER F. ATLEE.

The patient was a young man about 21 years of age, who had been laboring under the disease about one year. The tumor projected under the chin the size of the large end of a goose-egg, and elevated the tongue so that articulation was very indistinct.

A French exploring trocar was introduced, but only a drop of fluid came out. A hydrocele trocar brought away about three ounces. The canula then slipped out, before it was quite emptied.

The patient left to attend to something in the country, intending to return at the end of two weeks.

Microscopical and chemical examination, by Dr. J. G. Richardson.

The contents of the ranula as removed by Dr. Atlee consist of a yellowish viscid fluid, in which float an immense number of rounded bodies of a whitish color, varying from $\frac{1}{25}$ to $\frac{1}{100}$ of an inch in diameter, and at first sight presenting the aspect of minute salivary calculi.

On heating them, however, upon platina foil, they swell up with some crepitation, then turn black, and finally are consumed, leaving a scarcely perceptible trace of inorganic material. During combustion, the light emitted displayed a very bright sodium line when viewed with the micro-spectroscope. Hence they appear to be composed chiefly of organic matter, with a small quantity of some soda salt, and perhaps a mere trace of lime.

Under the microscope, the fluid is seen to be filled with leucocytes, fatty epithelial cells, and peculiar minute rice-shaped bodies averaging perhaps $\frac{1}{2000}$ of an inch in length, whose nature was not determined.

I may add that on consulting Dr. James E. Garretson this morning, I was informed that he had never met with a case in which these minute concretions were present; but in his comprehensive "System of Oral Surgery," I find he refers to an instance reported in "Bell's Principles of Surgery," where the viscid contents of a ranula included "numerous seed-like bodies," which may have been analogous to those visible in the specimen just presented.

Multilocular ovarian tumor. By Dr. ELLIOTT RICHARDSON.

The patient (Mrs. M.) from whom this tumor was removed was about 50 years of age. She had been married at fifteen years of age, and her husband survives her, but during the period of about thirty-five years of married life she had never been pregnant. Her menstrual functions were, however, regularly performed until she reached the age of forty years, when they ceased. Though always an active person, for many years she had complained of poor health, but had never during adult life had a severe attack of illness. No hereditary tendency to disease could be found, but this was rather due to ignorance of her family record than to any positive evidence.

In early married life she is said to have had venereal disease, but of what form could not be ascertained.

Early in January, 1875, nine years after the cessation of her menses, she was seized with a copious hemorrhage from the vagina, which did not, however, continue long, and after its cessation she noticed for the first time a tumor in the lower part of the abdomen, to the right of the median line. The tumor at that time is described as not being of large size. She soon after put herself under medical observation, and for the following eight or nine months consulted several physicians. During this time the tumor continued to grow, and its growth was accompanied by pain in the back and loins and other distressing symptoms due to its presence, but the hemorrhage did not return.

In September of last year she had the operation of paracentesis abdominis performed, which gave her much temporary relief. In the following November I first saw her. She was then in poor general health, was thin, and badly nourished. Her abdomen was greatly distended, and in consequence there was great dyspnœa, and about the back and abdomen considerable pain of a dull character. Examination of the abdomen by palpation plainly showed the existence of fluid in the peritoneal cavity. Vaginal examination disclosed the presence of a large tumor almost entirely closing the superior strait of the pelvis, with the os uteri elevated, almost in the median line; it and the uterus were firmly fixed and immovable. After her refusal to go to a hospital for the purpose of undergoing an operation for radical cure, or to have any operation for the removal of the tumor performed, I decided to tap the abdomen. This was done by means of a trocar and canula, on the 12th of November, and nearly a wooden house-bucketful of perfectly clear serous fluid drawn off.

The tumor was now plainly discernible, and was found to extend to or a little above the umbilicus. The operation gave great relief.

From this time I lost sight of my patient until March 6 of the present year, when I was called upon to see her again. I found her much emaciated, and general health very poor. Since the last tapping she had relieved the serous accumulation in the peritoneal cavity by puncturing the attenuated tissues at the umbilicus with a needle, and for several weeks had allowed the serum to ooze from this small opening. I found the

umbilicus the seat of an ulcer of considerable size, the result of this irritation and attrition of the clothing.

As the abdominal accumulation was again large, at the patient's request I again punctured the abdominal cavity, and again drew off a wooden bucketful of fluid. This time the fluid was at first clear yellow and limpid, but towards the last became discolored with blood. I saw her on the following day, when I found her much more comfortable, though weaker, probably from the loss of blood on the preceding day. Twelve days afterwards (March 19) I was sent for to see the patient again, when I found her extremely prostrated with pain of considerable severity, chiefly on the left side of abdomen and in the back; her pulse was small and frequent; surface of body and extremities cold, and occasional vomiting; the patient being able to take but little food, and that in small quantities frequently repeated. Her lower extremities were very œdematous. I saw her daily from this time until the day of her death, April 6. The vomiting increased until no food could be retained on the stomach, and nutritive, stimulating, and anodyne enemata supported life and relieved in a measure her distressing symptoms. During the last two days profuse diarrhœa came on and terminated her existence.

Post-mortem examination, made sixteen hours after death.—The surface of the abdomen on the right side was much discolored, being of a livid color, due to the pressure and irritation of the clothing during the last few days of the patient's life. An incision in the median line was made through the abdominal walls, which were found to be very thin and almost free from fat.

The peritoneal cavity was found to contain over a bucketful of a muddy, light-colored fluid, and an immense quantity of coagulated lymph adhering to all the serous surfaces, the result of a general peritonitis. The tumor (a large multilocular ovarian) was found adherent in front to the bladder, and low down to the abdominal walls anteriorly, behind to the intestines and the uterus. It seemed to have originated from the right ovary, and was found to consist of numerous cysts of different sizes, containing fluids of different density and color, as is usually the case in such growths; the contents of some of the cavities being of a gelatinous character; others containing a dark-brown, limpid fluid, etc. One of the cysts, occupying apparently the summit of the tumor and of large size, was found ruptured, and its contents escaping into the peritoneal cavity had evidently given rise to the general peritonitis.

Exactly when this sac had ruptured I cannot say, but I do not think that the peritonitis could have become general until several days after the last tapping.

No other parts of the body were carefully examined.

Perforating ulcer of the stomach. By Dr. F. H. Gross.

The specimen of perforating ulcer of the stomach which I have to exhibit was taken from the body of a German, a cabinet-maker, aged 54 years. The case was never seen by me during life, and, although its history is not as complete as might be wished, the specimen itself, with the account I am able to furnish, may be of interest to some of the members of the Society.

By a friend of the deceased I am informed that the latter's health had not been good for at least ten years; he generally suffering from some derangement of the stomach. During all that time the patient applied only once, about five or six years ago, to a physician for medical aid. He received but one prescription, and was told that his disease was dyspepsia. About the same time, but whether immediately before or after applying to the physician I could not learn, he had a hemorrhage, which my informant described as a "rush of blood from his mouth and nose." This was followed by considerable relief, and he remained in better health for two years; but continued to complain of a sense of pressure over the region of the stomach. For several months prior to his death his health was noticed to be decidedly bad. The pain and oppression over the epigastrium had greatly increased, and he raised, especially in the morning, a quantity of purulent matter. No solid food of any kind could be taken into the stomach without causing great distress, and he therefore subsisted mainly upon soups and large quantities of lager beer. The latter article he said not only rested easily upon his stomach, but gave him considerable relief, and induced him to indulge in it to an immoderate extent. It may be of interest to note that vomiting is said never to have been one of the symptoms of his disease.

On the morning of the 10th of last month (March), the day of his fatal attack, he appeared better and more lively than he had been for some time, and went to work as usual, as he rarely permitted his disease to interfere with his labors. But while talking quietly with a friend in his shop on the day alluded to, he was suddenly seized with violent pain in the abdomen. The account given of the condition that immediately followed is rather vague. A neighboring apothecary was applied to in the emergency. The patient was in great agony, and suffered excruciating pain on being removed to his residence in a carriage.

Dr. Eshleman, of this city, was called in on the same evening, and remained in charge of the patient until he died. He was prevented from being present at the autopsy, but has kindly furnished me with the following statement:

"I was called to see the patient on Friday night, 10th of March, about 9 o'clock. Found

him lying on his back with knees flexed, surface pale and bathed in perspiration, pulse 128 and quite weak; complaining of great pain, especially in the epigastrium, but extending over the entire abdomen and up the left side of chest and neck; excessive tenderness on slightest pressure, with hard and board-like condition of the walls of the abdomen. His tongue was dry and brownish; he had no nausea or vomiting. His sufferings were greatly increased by any movement of body."

Dr. E. further states: "I applied hot fomentations and placed the patient under the influence of opium. There was no change in his condition on Saturday and Saturday night, except that he suffered less pain, his pulse becoming weaker and more frequent. He died on Sunday morning, about thirty-eight hours after my first visit."

This comprises the history of the case while under the observation of the gentleman named, who also had no previous acquaintance with patient.

The autopsy was made about sixty hours after death, by Dr. James Collins and myself. The body was emaciated, but not extremely so. The cavity of the abdomen was found to contain a quantity of thick yellowish fluid, which had escaped from the stomach through the perforating ulcer seen in this specimen. The position of ulcer is in the anterior wall and very near the lesser curvature of the stomach, and nearer the cardiac than the pyloric opening of that organ. The ulcer is round, and presents the usual dish-like appearance of these lesions. The diameter of the opening on the inner and mucous side is one inch, and gradually contracts so as to leave the perforation in the peritoneal covering a quarter of an inch in diameter. A short distance from this lesion is another of more recent date, and which appears to have involved only the mucous coat.

The other organs of the abdominal cavity appeared to be in a healthy condition, as did also those of the chest.

Ulceration of the intestines from a case of typhoid fever. By Dr. JOHN M. KEATING.

The specimens which I have the honor to exhibit to the Society this evening were removed last week from the body of a man who died in the Philadelphia Hospital. C. C., æt. 20, was admitted to the medical ward on March 12. Belonging to that class of migratory individuals who prefer to wander from town to town, with an occasional sojourn in a poor-house or hospital, to any steady occupation, he had been much exposed to the inclemency of the weather, and as to nourishment he stated that he scarcely ever saw anything which deserved the name. The day previous to his admission he had walked from Newark, N.J. His main complaint was extreme weakness, and the truth of it was made evident by the great pallor of his countenance and the feeble pulse, which was quick and almost imperceptible. In addition to this, he suffered from sore throat; upon examination the pharynx was found much congested, the papillæ enlarged, the left tonsil slightly ulcerated, but no membrane was to be seen. There was no headache, no abdominal symptoms. He was ordered the best diet, rest, tincture of iron, and chlorate potas., and upon this treatment he seemed for a few days to improve.

At the end of a week the attention of the resident physician was called to the fact that our patient had diarrhœa, and that the stools were watery and freely charged with a dark coffee-ground deposit, which proved to be blood. On the 21st of March, nine days from the date of admission, the temperature in the axilla rose to 103⅘°. At six o'clock on the same evening it was 105°; this being the first evidence which we had of any distinct febrile action, though previous to this no thermometric examination had been registered. Next morning the thermometer marked 103°. When I saw him at ten o'clock, he was in the following condition: the pulse was quick, exceedingly weak, but regular; the tongue was heavily coated, dark and dry. There was great difficulty in swallowing, from the parched condition of the entire pharyngeal mucous membrane. There had been some epistaxis, though this had been partially checked, slight oozing still continuing. He did not complain of headache; the face was not flushed, nor had the eyes that dull, heavy appearance so characteristic of typhoid fever.

Careful examination was made of the abdomen. No eruption was seen, but deep pressure revealed tenderness to a very slight degree in the right iliac fossa. This was never afterwards noticed, though at each visit it was carefully sought after. The lungs were healthy, with the exception of a slight bronchitis. A diagnosis of typhoid fever was made; the patient placed upon large quantities of milk; the whisky increased to ten ounces in twenty-four hours, and a mixture given of twenty drops of dil. nitro-muriat. acid and twenty drops of tinct. ferri chlor. every two hours, which it was hoped would control the diarrhœa, which amounted to about ten passages during the day. At 6 o'clock his temperature was 105⅘°.

Next morning (23d) the temperature had fallen to 103°. Epistaxis had required large doses of ergot and gallic acid to control it. He had taken his nourishment well, but seemed exceedingly weak. That evening, temperature 105°.

24th.—Morning temperature, 103°; evening, 104°. The diarrhœa was replaced by solid stools, light in color, but exceedingly offensive. This change may have resulted from the ergot and gallic acid. No eruption.

25th.—Temperature in morning, 103⅘°; evening, 105⅕°.

26th.—Morning temperature, 104½°. Half an ounce of whisky was ordered every hour, tinct. digitalis every two hours, ten drops. Evening temperature, 103°.

27th.—Morning temperature, 102°; evening, 105°. During this time the pulse had been averaging from 120 to 150,—exceedingly weak and gaseous. The heart-sounds had lost to a great degree their muscular element, and fatty degeneration had been noted.

28th.—Morning temperature, 103⅕°; evening, 102°.

29th.—Morning temperature, 102½°; evening, 104⅗°. One ounce of whisky was now ordered every hour. There was no marked dulness of intellect, but, owing to the slight delirium which occurred at night, and a tendency during its continuance to get out of bed, a nurse was specially deputed to watch him.

30th. 6 A.M.—Temperature, 101⅘°. No diarrhœa. 6 P.M., 103⅗°.

31st.—Morning temperature, 101⅘°; evening, 101⅗°.

April 1.—Morning temperature, 99⅘°; evening, 101°. Pulse 72, but very weak. Patient seemed convalescent.

April 2.—Pulse 130, owing to his having gotten out of bed during the night while the nurse was asleep. Evening temperature, 101⅕°. Whisky increased to one and a half pints in twenty-four hours.

April 3.—Morning temperature, 99⅘°. In the afternoon, while the nurse was attending to duties in another part of the ward, patient rose from his bed and dropped dead.

The peculiar interest attached to this case is due to the fact of the extensive fatty degeneration of the heart found post mortem, and to death occurring in convalescence from this cause, thus permitting an examination of the intestine at a stage when the reparative process has set in.

Dr. MORRIS LONGSTRETH wished to call attention to the form which the ulceration presented. In some of the ulcers the greatest length was placed transversely in the gut, the Peyer's patch being broader than long.

Dr. JOHN GUITÉRAS said he had observed this in making the post-mortem examination, but on raising the intestine to the light, the oval shape of the infiltration became evident in the longitudinal direction. He had noticed the same peculiarity in a case which he examined the following day, the cause of death here being intercurrent pneumonia. The large intestine in the latter case also contained many ulcerated follicles, showing in these two cases a tendency of the disease to be seated in the solitary glands.

Dr. LONGSTRETH said he had also met exceptions to the usual statement that the Peyer's patches were always found opposite to the attachment of the mesentery. Particularly had he found that in the neighborhood of the ileo-cæcal valve the patches were placed on the side of the intestine towards the attachment of the mesentery; especially was this the case on the lips of the valvular opening.

1. *Excision of the hip.*
2. *Excision of the knee.*
3. *Serous cyst of the breast.* By Dr. JOHN ASHHURST, JR.

1. *Excision of the hip.*—The head and neck of the left femur, removed by excision from a man twenty years of age, who had suffered from hip-disease for nearly five years. The patient was admitted to the Episcopal Hospital in January, 1876, having previously been an inmate of another hospital, where an unsuccessful attempt had been made to restore the mobility of the joint by the process of *brisement forcé;* the sole result of the attempt having been to lead to the formation of a large abscess, which was pointing on the outer side of the thigh when the case first came under Dr. Ashhurst's observation. This abscess was opened a few days after the patient's admission to the Episcopal Hospital, and excision was resorted to on March 15, since which date the patient's condition had slowly improved. The femur was divided between the trochanters with a chain-saw, and the extremity of the shaft rounded off with cutting pliers; the acetabulum was healthy except at one point, where it was scraped with the osteotrite. The head of the femur was markedly and the great trochanter slightly carious.

2 *Excision of knee.*—The exsected knee-joint of a woman twenty-six years of age, sent to the Episcopal Hospital by Dr. W. H. Bunn. The case was one of partial anchylosis, with recurrent arthritis and consecutive dislocation, the duration of the disease having been, in all, nineteen years, and the patient having been bedridden for the last six months. Excision by the simple transverse incision was performed on March 24, and the progress of the case since the operation has been perfectly satisfactory. This case was one of the ordinary form of arthritis, the joint being almost obliterated by intra-articular adhesions. The semilunar cartilages had disappeared, and the articular cartilages were eroded, the femoral condyles being carious, and one carious patch existing also in the tibia. The synovial membrane at one point presented the appearance of gelatiniform change, thus illustrating the fact heretofore pointed out by Dr. Ashhurst, that the gelatinous and ordinary forms of arthritis may coexist in the same case.

3. *Serous cyst of the breast.*—The patient was a lady between thirty and thirty-five years of age, who was placed under Dr. Ashhurst's care by Dr. Stokes, of Moorestown, N.J. She had been aware of the presence of the tumor for about six months, and, though assured of its non-malignant character, was anxious for its removal, as, though not painful, it gave her a sickening sensation when touched. The tumor occupied the inner portion of the left breast, and was about the size of an English walnut, very tense, and freely

movable, rolling about under the finger like a marble. Excision was performed on March 27, a single incision being made in a line radiating from the nipple, which was not encroached upon. The tumor and the adjacent lobe of the gland were removed, several small cysts being discovered in addition to that which formed the growth, which had been recognized before the operation. The specimen furnished a good example of the simple hygroma or serous cyst of the breast, a growth which should not be confounded with the *sero-cystic sarcoma* of Sir Benjamin C. Brodie, which is a proliferous cyst with intracystic growth and probably an early stage of one form of the adenoid or chronic mammary tumor.

Scirrhus of the rectum. By Dr. WILLIAM PEPPER.

W. C. P., æt. 55, a miller by occupation, had enjoyed general good health until October, 1874. He had never contracted syphilis, and had no hereditary predisposition to cancer or tuberculosis.

At the time above stated, he first noticed some difficulty in evacuating the bowels, with frequent disposition to go to stool, but with the passage of only a small semi-fluid stool, at times mixed with a good deal of mucus. He had lost fifteen pounds of flesh, was somewhat pale, but had no cachectic appearance. Early in March, 1876, two large internal hemorrhoids were removed by ligature.

I first saw him March 20, and, suspecting from the symptoms some obstruction of the rectum, made a digital examination, which revealed an elastic, indolent, hard mass, apparently spheroidal, and about 1½ inches diameter, situated three or four lines above the anus, and occupying the whole circumference of the bowel. There was an aperture in the centre, of slit-like character, fringed with small polypoid growths. He was directed suppositories of acetate of lead and belladonna, Friedrichshall water, and cautious dilatation if stricture increased. Within a fortnight symptoms of complete obstruction made their appearance; a bougie was passed through the stricture without affording any relief, and, after a continuance of these symptoms for a few days, death ensued. At the post-mortem examination, the colon was found enormously distended with gas, but with very little fecal contents. The connective tissue surrounding the rectum was much thickened and condensed. On cutting open the bowel, a mass of scirrhous growth was found about three or four inches above the anus, involving the submucous tissue and extending to the outer coat of the bowel and the surrounding cellulo-fatty tissues. An ovoid tumor about the size of a hen's egg was thus formed. The entire circumference of the bowel was involved, with the exception of a narrow space on the anterior wall. The sub-mucous growth projected into the bowel, causing marked obstruction of its lumen, and leaving only a slit-like aperture. This was of sufficient size, however, to permit the passage of some solid fæces; but at the autopsy it was found that the fringes of thickened mucous membrane which projected around the margin had become so arranged as to cause complete occlusion. There was no ulceration of the mucous membrane, nor any free growth upon its surface.

Dr. ASHHURST said that strictures of the rectum, as of the other hollow tubes of the body, often produced much greater impairment of function than could be accounted for by the degree of mechanical obstruction present. Thus, in the case of the rectum, though the stricture might permit the passage of an instrument, the propulsive power of the gut might be so much lessened as to render defecation very difficult. This loss of propulsive power also permitted the accumulation of fecal matter below the stricture, thus leading to irritation which might gave rise to fecal incontinence, and sometimes led to the formation of fistulæ, which, as was well known, often had their internal openings in these cases below the seat of stricture.

A case of hemorrhage into the ventricles of the brain of an infant. By Dr. CHAS. WINSLOW DULLES. See original communication in current number of the *Times*.

REVIEWS AND BOOK NOTICES.

CONSUMPTION IN AUSTRALIA. By C. E. REEVES, M.D. I. Brooks, Melbourne, 1874.

This well-written brochure of about one hundred and fifty pages is based upon between two and three thousand cases of pulmonic disease which have come under the notice of Dr. C. E. Reeves during a residence of thirteen years in the colony. Since in England it has been more or less the habit to use Melbourne as a health-resort for consumptives, the information given by Dr. Reeves must prove most interesting to the practitioners of the mother-country. There are, however, several points of general interest, which we note. The climate of Melbourne is stated to have become colder and moister, on account of the increased cultivation of the soil, and the percentage of deaths from tubercular (so-called) diseases to have markedly increased both among the white and native races. No meteorological statistics are, however, deduced to prove the change in the climate, and certainly the usual result of reclaiming a primeval country is increased dryness and diminished rainfall. It seems to us that Dr. Reeves might do a very good work by investigating more closely these alleged climatic changes, and by endeavoring to find out whether the increase of pulmonic disease may not have some other cause.

Hydatids of the lungs—a disease in this country almost unheard of—is stated to be one

of the most common affections. It is especially frequent in the country stations among the blacks, partly the result of eating underdone mutton, partly produced by drinking out of the "water-holes." The whole brute creation appears to have a community of interest in these "water-holes;" men, white and black, dogs, wild and tame, sheep, cattle, horses, etc., sharing the common refreshment and the common danger, the cause of which may be seen in some ponds attached to all the plants. Dr. Reeves says that even the water-cress often has growing on it the hydatid, so that its use as an article of food is attended with much risk. We trust that the opportunity will not be lost, and that Dr. Reeves or some of his confrères will give us a careful and elaborate monograph upon hydatid disease.

SELECTIONS.

NASAL BOUGIES.—A Vienna chemist, Mr. F. A. Grohs, had attempted for many years to replace the fat in suppositories, etc., by some substance which would not melt so quickly between the fingers, and which could be moulded and introduced with greater facility. He was for a long time unsuccessful, but at length he found, in the *gelatin* extracted from the bones of calves, a substance suitable to his purpose. This substance is flexible and elastic, and yet not too soft; it can be mixed with various medicinal agents and run into moulds. Suppositories of this material have for many years been used by Professors Braun and Sigmund with great success in cases of uterine catarrh and gonorrhœa. The gelatin may be medicated with astringents, as alum, tannin, rhatany, and salts of lead, bismuth, zinc, and iron, with anodynes, as morphia, belladonna, and even chloral hydrate. Mercury and iodine can also be applied in this way, but permanganate of potash is inadmissible, as it destroys the gelatin. The suppositories made with this substance are elastic, like India-rubber, they do not melt easily between the fingers, and they are much cheaper than those made with cacao butter.

It is only quite recently, however, that bougies of this material have been employed in cases of nasal disease. Their use was first introduced at the laryngoscopic clinic, and it has been attended with great success. The bougies used resemble those already employed in urethral diseases; they are something over three inches in length, and from one-eighth to one-fourth of an inch in diameter, and are pointed at one end, so as to be more easily introduced. The drugs most commonly applied in this way are the astringents, as alum, sulphate of copper, rhatany, and carbolic acid. Hitherto the treatment of nasal disease has been confined to injections of tepid water and solutions of different drugs, and applications of caustics to the nasal mucous membrane by means of a *porte-caustique*, the latter of which methods causes intense pain when the mucous membrane is swollen and the meatus is narrow. Further, cauterization cannot be employed sufficiently often. The introduction of the nasal bougie, on the contrary, is not at all painful; the elastic body adapts itself to every irregularity in the nasal cavity, passes very easily through the narrowest parts of the meatus, and dilates them by a gentle pressure.

These bougies have been used in cases of coryza and ozæna, and, with great success, in cases of extensive swelling of the nasal mucous membrane and of the turbinated bones. If there is total obstruction of the meatus, and air cannot be drawn through the nostril, the introduction of the first bougie often effects a marvellous improvement. In cases of ozæna, sulphate of copper and carbolic acid are the most useful agents; but where there is extensive swelling and relaxation of the mucous membrane, the tincture of rhatany is to be recommended. Sulphate of zinc is not much used, for, according to Störk's experiments, solutions of this drug, even when they are only *injected* into the nose, destroy the power of smell.

There is no difficulty in introducing the bougie. It is advisable to give it a rotatory as well as an onward motion during introduction. Even in the most obstructed meatus it is possible to introduce the bougie completely, and in any direction. Afterwards the nostril is plugged with lint, to prevent the liquefied gelatin from escaping by any other orifice than the posterior nares. When there is much secretion present the bougie may liquefy in three-quarters of an hour; but it usually takes three hours. It causes no unpleasant sensation while in the nose, and it is useful not only in applying medicaments to the mucous membrane, but in keeping the meatus dilated. Several who have tried the bougies speak very favorably of them, and a collection of the gelatin suppositories recently sent to the Berlin Surgical Conference was much praised.—*Medical Examiner.*

GLEANINGS FROM EXCHANGES.

LUXATION FORWARD OF THE ODONTOID PROCESS FROM CARIES OF THE ATLAS (*New York Medical Journal*, June, 1876).—A man presented himself at Mount Sinai Hospital, about twelve months ago, suffering from retro-pharyngeal abscess. After a careful examition, it was found that the cause of the abscess was either caries or necrosis of the atlas. During the time he was under observation, paralysis of the legs appeared. This became progressive, and for the past two months the

lower extremities were completely involved. Latterly the upper extremities became affected, and at the time of the patient's death he was unable to lift his fore-arm above the line of the nipple. The end of the patient was hastened by dyspnœa, which lasted for a fortnight, but for the last week or ten days was very severe. At the autopsy, the atlas was found to be in great part destroyed. The odontoid process of the axis had apparently passed gradually forward, and after involving the motor and sensory tracts had eventually pressed upon the respiratory centres. The spinal cord was flattened out and moulded about the periphery of the odontoid process.

RUPTURE OF THE SPLEEN (*New York Medical Journal*, June, 1876).—At a recent meeting of the New York Pathological Society, Dr. Finnel presented a spleen, with the following remarkable history. The patient was twenty-eight years of age, and the mother of three children. There was no history of previous disease. Suddenly, while lifting a stove, she felt that something gave way, and, consequent on this, severe pain in the abdomen. At that time the patient was in the third month of her pregnancy. The abdominal pain continued steadily for three days, when abortion came on, and on the following day she was delivered of a decomposed fœtus. The physician who was called on to attend her during the abortion suspected, from the severity of the pain, that the patient was suffering from peritonitis. Four hours after delivery the patient died. At the autopsy, two pints of blood were found in the peritoneum, and on examining for the cause it was noticed that blood was escaping from fissures in the spleen. There was no extravasation in or about that viscus to show the effect of injury. The spleen weighed five ounces, and resembled currant jelly. The other viscera were healthy. The points of particular interest in the case were, the absence of all signs of peritonitis, and the presence of rupture of an organ like the spleen, without any history or signs of direct injury.

RUPTURE OF THE RECTUM CAUSED BY A FALL UPON THE ABDOMEN (*The Boston Medical and Surgical Journal*, June 1, 1876).—Dr. Frank Wells reports the case of a man, æt. 40, who fell upon the edge of a box, striking his abdomen midway between the umbilicus and symphysis pubis. The following day his pulse was 130 and thready; pain intense. He was given a hypodermic injection of morphia and sent to a hospital.

When admitted, he was to a great extent under the influence of the drug. The pulse was 90 and full, the face anxious but not pale. He was groaning with pain, referred to the whole surface of the abdomen, which was tender upon pressure, and slightly tympanitic. He was immediately ordered morphia *pro re nata*, brandy and quinine at frequent intervals, and turpentine stupes to his abdomen. Upon the following morning he passed his urine freely, and had two dejections from the bowels, which were reported to have been natural in consistence, but somewhat dark in color, and mixed with considerable mucus. He gradually fell into a state of unconsciousness, the pulse becoming more rapid and feeble until his death.

At the autopsy a quantity of purulent serum was found in the abdominal cavity, and an exudation of a thin, gray membrane agglutinating the intestines and neighboring parts. The most remarkable discovery, however, was that of a longitudinal laceration, two inches in length, situated in the central portion of the rectum, through which the fæces were extruding. The liver was cirrhotic.

The chief points of interest about this case are that a blow upon the abdomen should have caused a rupture of the rectum so low down, and that with such a serious injury the patient should have been able the next morning to attend to his work. In regard to the first point, it is probable that the rupture would not have taken place had not the rectum been loaded with fæces.

MISCELLANY.

TRANSFERENCE OF MEASLES TO DOG.—Dr. Squire recently narrated to the London Epidemological Society an instance of the conveyance of measles from man to the dog. A dog licked the hands of a child in bed with the rash of measles at its height. The dog sickened on the twelfth day, suffered from coryza two days, and died on the fourth day of illness, with most characteristic congestion of the throat and air-passage. The dog had gone through distemper four years before; a proof that the usual form of distemper in dogs is not measles.

THE ITALIAN UNIVERSITIES.—The *Bolletino Ufficiale* of public instruction gives the following as the numbers of medical students inscribed in the books of the Italian universities for the present year: in the royal universities of Naples, 991; Turin, 361; Padua, 251; Pavia, 250; Bologna, 176; Rome, 157; Genoa, 128; Pisa, 104; Modena, 78; Siena, 69; Parma, 61; Palermo, 60; Catania, 36; Messina, 17; Sassari, 17; Cagliari, 10; Macerata, 7; in the free universities of Perugia, 18; Ferrara, 6; Camerino, 5.

IT is stated that after a thorough investigation of the Liermer system of sewerage as practised in Holland, the contract has been awarded to Dr. Strousberg for its introduction into St. Petersburg, at a cost of about twenty millions of dollars.

DR. H. C. WOOD was elected, June 20, to the Chair of Materia Medica and Therapeutics in the University of Pennsylvania.

A LAMENT BY AN OLD FOGY OVER THE METRIC SYSTEM REFORM.

"Hard *lines!* to form a *league* to take away
The only *rod* that stayed my aged *feet*,
To strip my very dwelling of its *ell*,
And turn its *yard* into the public street.

"And *scruple* not to rob me of my *dram*,
The sole supporter of my tottering state,
Now that my *gill* is gone and I dropped down
From *stone* to *stone* to scarce a *hundred weight*.

"My last *mile's* done, my latest *pound* is gone.
No *ounce* of joy or hope is left me here.
I only pray that heaven may scatter down
Some *grains* of mercy on the old man's bier."
—*Boston Med. and Surg. Journal.*

NOTES AND QUERIES.

A BILL TO BE ENTITLED "AN ACT TO AMEND AN ACT ENTITLED 'AN ACT TO REGULATE THE PRACTICE OF MEDICINE,'" PASSED MAY 16, 1873.

SECTION 1.—*Be it enacted by the Legislature of the State of Texas*, That no person shall be permitted to practise medicine in any of its branches or departments in this State, as a means of livelihood, without first having a certificate of qualification from some authorized board of medical examiners, as hereinafter provided.

SEC. 2.—That every person who may hereafter engage in the practice of medicine in any of its branches or departments in this State, shall, before entering upon such practice, furnish to the clerk of the district court of the county in which such practitioner may reside or sojourn, his certificate of qualification; and said clerk shall enter the name of said person in a well-bound book, kept in his office for that purpose, together with the time when, the place where, and the person or persons by whom such certificate of qualification was given, after which he shall return the said certificate to the owner thereof. For which service said clerk shall be entitled to receive from each, any, and every such applicant the sum of one dollar.

SEC. 3.—That the presiding judges of the district courts of the several judicial districts shall at the first regular term of their courts after this act shall become a law, or as soon thereafter as practicable, severally appoint a board of medical examiners for their respective districts, to be composed of not less than three practising physicians of known ability, and having certificates of qualification for the practice of medicine under the "Act to regulate the practice of medicine," passed May 16, 1873, and said board of examiners to continue in office two years from and after their appointment; and they shall immediately after accepting such appointment select one of their number president, and one as secretary, and adopt all necessary rules for the guidance and control of their meetings. It shall be the duty of said board of medical examiners to examine all applicants for certificates of qualification to practise medicine in any of its branches or departments in this State, whether such applicants are furnished with medical diplomas or not, upon the following named subjects, to wit: anatomy, physiology, pathological anatomy and pathology, surgery, obstetrics, and chemistry, said examination to be thorough. When the said board of medical examiners shall have been satisfied as to the qualifications of said applicant, they shall grant him a certificate to that effect, which certificate shall be recorded with the clerk of the district court of the county in which said applicant may reside or sojourn, as provided in section two of this act. Such board of examiners shall be entitled to receive the sum of twenty-five dollars for each and every such applicant, to be paid by the applicant or party so examined; any two of them shall have authority to grant certificates, and whenever a vacancy occurs in any of said boards the same shall be filled by appointment by the judge of the district in which such vacancy occurs.

SEC. 4.—That said boards shall meet regularly semi-annually, at some central point in their respective districts, to conduct examinations and grant certificates as hereinbefore provided, and they shall give at least one month's public notice of said meeting, specifying the time and place thereof; *Provided*, that any member of any of said boards shall have authority to grant a temporary license or certificate to an applicant, upon examination, until the next regular meeting of the board, at which time the said applicant must apply for a thorough examination. Each and every one of such boards shall procure a seal, as soon as practicable after their organization, which seal shall be impressed upon every certificate granted.

SEC. 5.—That any person violating any of the provisions of this act shall be guilty of a misdemeanor, and on conviction thereof before any court having competent jurisdiction, shall be fined in any sum not less than fifty dollars and not more than five hundred dollars for every such offence, one-half of which fine shall be paid to the prosecutor and the other half into the county treasury; and it shall be the duty of the judge of each judicial district at each term of the district court, in the respective counties composing his district, to charge the grand jury with the necessity of preserving this act inviolate, and to admonish them of their duty to find presentments against any and all persons guilty of its infraction: *Provided*, that nothing in this act shall be so construed as to exclude or disqualify any person who may have been already qualified for the practice of medicine under the act of May 16, 1873, above recited.

SEC. 6.—That this act shall take effect six months from and after its passage.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JULY 2, 1876, TO JULY 15, 1876, INCLUSIVE.

SWIFT, E., SURGEON AND MEDICAL DIRECTOR.—Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 123, Department of the Gulf, June 30, 1876.

CLEMENTS, B. A., SURGEON.—Assigned to duty as Post Surgeon at Fort Sanders, Wy. T. S. O. 92, Department of the Platte, July 7, 1876.

TILTON, H. R., ASSISTANT-SURGEON.—On completion of examination for promotion, to proceed to Headquarters Department of Dakota, and report to the Medical Director of that Department. S. O. 138, A. G. O., July 10, 1876.

BREWER, J. W., ASSISTANT-SURGEON.—Assigned to duty at Fort Bridger, Wyoming Territory. S. O. 88, Department of the Platte, June 28, 1876.

SMART, CHARLES, ASSISTANT-SURGEON.—Assigned to duty at Camp Douglas, U. T. S. O. 88, c. s., Department of the Platte.

COUES, E., ASSISTANT-SURGEON.—To report to Secretary of Interior for duty with the U. S. Geological and Geographical Surveys of the Territories, under charge of F. V. Hayden, U. S. Geologist. S. O. 134, A. G. O., July 3, 1876.

KINSMAN, J. H., ASSISTANT-SURGEON.—When relieved by Dr. Terry, to proceed without delay from Fort Ripley, Minn., to Fort A. Lincoln, D. T., for temporary duty at that point. S. O. 83, Department of Dakota, July 12, 1876.

CALDWELL, D. G., ASSISTANT-SURGEON.—Leave of absence extended two months. S. O. 137, A. G. O., July 8, 1876.

BENTLEY, E., ASSISTANT-SURGEON.—Granted leave of absence for six months. S. O. 137, c. s., A. G. O.

KIMBALL, J. P., ASSISTANT-SURGEON.—To accompany battalion of Twenty-Second Infantry from Forts Brady and Mackinac to Fort A. Lincoln, D. T., for duty under General Terry. S. O. 127, Military Division of the Atlantic, July 9, 1876.

KING, J. H. T., ASSISTANT-SURGEON.—Assigned to duty as Post Surgeon at Fort Concho, Texas. S. O. 121, Department of Texas, June 30, 1876.

HARVEY, PHILIP F., ASSISTANT-SURGEON.—To accompany battalion of Twenty-Second Infantry, under command of Lieut.-Col. Otis, to Fort A. Lincoln, D. T., for duty under General Terry. S. O. 127, c. s., Military Division of the Atlantic.

DICKSON, J. M., ASSISTANT-SURGEON.—Granted leave of absence for one month from September 1. S. O. 129, Department of the Gulf, July 8, 1876.

TESSON, L. S., ASSISTANT-SURGEON.—To accompany battalion Fifth Infantry, under command of Col. Miles, to Department of Dakota. S. O. 139, Department of the Missouri, July 8, 1876.

KNICKERBOCKER, B., ASSISTANT-SURGEON.—His resignation accepted by the President, to take effect July 1, 1876. S. O. 134, c. s., A. G. O.